House Armed Services Committee Armor & IED Countermeasure Timeline Key Points

April-October 2003 Improvised Explosive Devices (IED) attacks grow steadily. Reach more than

100 per month.

September 2003 In response to operational needs statement (ONS) for the year, tactical vehicle

armor requirements set at 8,400 Humvee (HMMWV) add-on armor kits, 1,150 medium tactical vehicle kits, and 1,080 heavy tactical vehicle kits. (Medium

and heavy tactical vehicles are referred to as tactical trucks.)

October 2003 Army Research Laboratory (ARL) designs and produces 40 initial kits of

HMMWV add-on armor.

November 2003 Army determines HMMWV ARL add-on armor kits will receive top priority in

manufacturing and fielding given current threat assessment in Iraq. Army sets vehicle payload capacity restrictions for add-on armor due to HMMWV chassis

capability.

Army begins testing potential add-on armor solutions from industry in real time

at Army Test Center, Aberdeen Proving Grounds (APG), Maryland.

December 2003 House Armed Services Committee (HASC) begins oversight of Army armor

programs to include vehicle and personnel armor initiatives such as add on

armor kits and interceptor body armor production capacity.

Army approves \$129 million for add-on armor kits. \$300 million remains

unfunded.

HASC oversight team visits Aberdeen Proving Grounds to review testing of potential vehicle add-on armor solutions. HASC team and APG team create direct link for receiving potential armor coupons from commercial sector for

immediate testing at APG.

HASC engages Lawrence Livermore National Laboratory to find and develop

vehicle add-on armor solutions.

Body armor production increases to maximum level of 25,000 sets/month; employing eight vendors and maximizing available Spectra Shield materiel and

plant capacities.

January 2004 Additional unvalidated requirement for 3,670 add-on armor kits is submitted via

ONS from Iraqi theater.

HASC reviews Army production plan originally scheduled to complete 7,000 HMMWV add-on armor kits by December 2004. HASC determines best

production effort could finish 7,000 kits no later than April 30, 2004.

HASC submits memo to the Army noting that arsenals, depots, industry, and

steel mills are not operating at maximum capacity.

United States Marine Corps (USMC) determines that on redeployment to Iraq, all vehicles in First Marine Expeditionary Force's (MEF) inventory will have some form of armor protection.

February 2004

HASC oversight team and Army team visit steel mills. Reach agreement with steel mill management and union officials to voluntarily set aside commercial work and dedicate 100% capacity to vehicle add-on armor plate production.

HASC oversight team travels to M1114 Up-Armor HMMWV manufacturing facility in Fairfield, Ohio to assess production capacity. HASC works with Army and contractor to begin expanding production to maximum level.

Delivery schedule for steel is compressed by four months. HASC finds available Stryker steel armor plate at mill.

Feb 4, 2004 HASC Member classified force protection status briefing.

HASC determines that additional manufacturing capacity is required for add-on armor kit production. Army commits nine depots and arsenals to armor kit production.

Army stands up the Ground Systems Industrial Enterprise to act as integrator and manager of depots and arsenals producing armor kits.

Original Army installation plan requires the cycling of vehicles from Iraq into Kuwait for armor kit installation. HASC determines that U.S. production will outpace installation capability in Kuwait.

March 2004

HASC issues memo to the Army's Tank-Automotive and Armaments Command (TACOM) suggesting that 11 sites be opened in Iraq to install HMMWV add-on armor.

Mar. 2, 2004 HASC Member classified force protection status briefing.

Sec. Army directs compression of schedule to HASC recommended production rates.

United States Central Command (CENTCOM) issues ONS for additional 4,760 add-on armor kits.

Army notifies HASC of delinquent deliveries of steel from Canadian steel mill and requests HASC assistance to resolve issues. HASC oversight team on-site visit to Canadian steel mill resolves delivery issues.

USMC produces and installs enough high hard steel add-on armor kits (level 3 protection) for First MEF vehicles in three months, totaling approximately 3,000 vehicles.

April 2004

HASC expands focus to the armoring of the tactical truck fleet.

Apr. 1, 2004 HASC Tactical Air Land Subcommittee hearing, panel dedicated to force protection and armor kit status and future requirements.

Apr. 21, 2004 HASC Hearing on Tactical Wheeled Vehicle Armoring and Acquisition System Responsiveness to Operational Needs Statements from theater. HASC highlights at hearing an unvalidated ONS from theater for additional 4,760 HMMWV add-on armor kits. HASC notes this ONS is still unvalidated.

Stryker steel arrives at Letterkenny Army Arsenal for fabrication.

CENTCOM reports 100% requirements filled on body armor for entire theater of operations to include DOD civilians.

May 2004 Army completes 6,670 HMMWV armor kits one week late to the HASC

schedule but six months ahead of the original Army schedule.

May 20, 2004 HASC marked version of the National Defense Authorization Act for Fiscal Year 2005 passes the House. Bill authorizes emergency bridge supplemental that contains over \$1 billion for vehicle armoring initiatives; bill also includes provision creating rapid acquisition authority for SecDef.

USMC begins converting First MEF "level 3" high hard armor kits to "level 2" 3/8th inch rolled homogenous armor kits.

HASC oversight team begins receiving weekly updates from theater on armor kit status in Iraq to include installation timelines.

June 2004 Stryker steel gun boxes delivered to Iraq for installation and gun truck kit fabrication.

> Jun. 10, 2004 HASC Member classified briefing on status of force protection initiatives in Iraq.

CODEL Hunter to Iraq

July 2004 Army releases first funding for five-ton medium tactical truck armor kits.

> Army finally validates CENTCOM ONS for additional 4,760 HMMWV add-on armor kits four months after HASC received the ONS from theater and highlighted the need at hearing in April 2004.

CENTCOM requirement jumps to 13,876 add-on armor kits for HMMWVs.

Marine Corps indicates all Marine tactical wheeled vehicles in theater now have at the minimum, "level 2" zonal kitted armor.

HASC team oversight trip to oversee force protection systems production.

M1114 Up-Armor HMMWV monthly production reaches 450/month.

Aluminum mill shipments threaten to break production of armor kits for tactical trucks. HASC team meets with aluminum company executives and arranges for shift in priorities back to military armor programs.

August 2004

October 2004

November 2004

HASC team oversight trip to the Armored Security Vehicle (ASV) manufacturing facility to assess its production capacity and the possibility of acceleration.

HASC team oversight trip to medium and heavy tactical truck armor kit manufacturers and body armor manufacturer to assess status.

Army announces vehicle armoring strategy for armoring tactical wheeled vehicles in theater as quickly as possible through three levels of protection to include "level 1" (factory produced M1114 up-armored High Mobility Multipurpose Wheeled Vehicles (HMMWVs)), "level 2" armor (factory produced add on kits), and "level 3" (locally procured and produced add-on kits using steel that meets Army specifications)

December 2004

HASC team oversight trip discovers that IED countermeasure supplier running out of Army funding and laying off critical production personnel.

HASC Chairman holds Army \$2 billion reprogramming action pending full funding of IED countermeasure production.

Army has tested over 207 different Armor proposals from 40 vendors.

Sec. Army stands up Armor Task Force to establish formal process for gathering all relevant players together to formulate the path forward for armor.

USMC begins production of next generation level 2 armor kits for HMMWVs and tactical trucks.

January 2005

Army ships first five ton truck kit, three months later than the original commitment.

HASC oversight team reports on low cost jammer oversight studies.

CENTCOM reports official policy of no unarmored vehicles shall operate outside of secured forward operating bases after Feb. 15, 2005.

HASC Chairman receives status update on body armor and current threat assessments in Iraq.

February 2005

Army reports deliveries of IED countermeasures will not be complete until November 2005.

Feb. 2, 2005 HASC Member classified force protection status briefing.

HASC team oversight trip to IED countermeasure manufacturer.

HASC team oversight trip to IED 2nd countermeasure 2nd tier manufacturer.

HASC team oversight trips to tactical truck armor kit manufacturers and Army and Marine Corps depot facilities to assess progress on armor kit production.

HASC oversight team meets with senior OSD staff and USMC to discuss potential interim solution for underbody armor kits to address intensifying stacked mine threat to Marines operating in Iraq.

March 2005

HASC team oversight trip walks 3rd tier IED countermeasure production lines to eliminate production delays.

HASC Tactical Air Land Subcommittee hearing on land component budget request, one panel dedicated to force protection.

M1114 Up-Armor HMMWV validated theater requirement increases. Tactical vehicle add-on armor requirements increase slightly.

M1114 Up-Armor HMMWV monthly production reaches 550/month, seen as maximum production rate.

USMC establishes armor install site in Camp Taqqadum, Iraq. Begin to install next generation level 2 armor kits at rate of 200/month.

April 2005

Low cost jammer solutions tested at Yuma.

II MEF (Fwd.) identifies requirement for 400 MAK underbody armor kits. This requirement was based off operational tempo and manpower availability at the organizational and unit level.

HASC Chairman meets with General William Nyland, Assistant Commandant of the Marine Corps to readdress the gunnery sergeants proposed interim solution for underbody armor kits.

HASC Chairman briefs General Nyland on readily available excess $3/8^{th}$ inch armor panels located at Army Materiel Command depot in Kuwait. Suggests using these for an interim solution to the HMMWV underbody protection kit requirement.

General Nyland agrees and commits to HASC Chairman to contract and ship armor panels from Kuwait to Marine units operating in Iraq for HMMWV vehicle protection.

Marines determine to use armor in Kuwait for rocker panel fabrication. Proceed down seperate path to create MAK underbody armor kits as 100 percent solution.

Body armor: Army has fielded over 672,000 outer tactical vests (OTVs) and 539,000 sets of small arms protective inserts (SAPI).

May 2005

HASC Chairman requests DepSecDef use Rapid Acquisition Authority to mass produce low cost jammer.

SecDef issues determination and the first use of Rapid Acquisition Authority.

Second source established for low cost jammer production

May 5, 2005 HASC Hearing on Army and Marine Corps Tactical Wheeled Vehicle Armoring and IED Countermeasure initiatives in Iraq.

HASC oversight team receives briefing on the status of Marine Corps body armor outer tactical vests.

HASC Chairman meets with Lieutenant General (Lt Gen) Duncan McNabb, Director for Logistics (DJ-4), Joint Staff to receive personnel force protection update to include vehicle armor, gun trucks, Marine Corps underbody protection kits, and cross leveling of equipment in theater

HASC Chairman learns Marine Corps contract for shipment of armor panels has yet to be awarded.

FY 2005 Emergency Supplemental passes the House.

National Defense Authorization Act for Fiscal Year 2006 passes the House. Authorizes emergency bridge fund to include force protection initiatives and expands rapid acquisition authority.

June 2005

June 21, 2005 HASC Hearing on Marine Corps Underbody Armor Kits

HASC team oversight trip to Low Cost IED jammer manufacturers.

USMC finally awards contract to move armor panels to II MEF (Fwd)...four months after General Nyland agrees to expedite the contract. Official completion of rocker panels to occur two months after the contract award.

Vice Chief of Staff of the Army briefed and signals approval of Army's proposed Long Term Armoring Strategy (LTAS) to include lessons learned from Iraq. Army briefs industry officials on LTAS.

Low Cost Jammer (now called Warlock Blue) contract awarded and production begins. Over 4,500 units to be delivered in 58 days of contract award.

Marines identify new requirement for additional 2,368 M1114 Up-Armor HMMWVs. CENTCOM requirement is 2,814.

July 2005

USMC finishes production and hits final delivery to theater of 400 MAK underbody armor kits.

HASC begins receiving weekly updates on Marine Corps underbody armor kit installation and rocker panel production in Kuwait. As of July 18, 143 rocker panels have been produced. MAK Underbody Armor Kit installation begins to ramp up at Marine Installation Site in Iraq.

July 21, 2005: HASC holds classified force protection brief.

July 21, 2005: HASC holds static force protection display, which includes a HMMWV with MAK kit, body armor, and Gun Trucks with armor survivability cab kits.

USMC begins working on side torso coverage for Interceptor Body Armor system. System would incorporate two side SAPI plates.

HASC oversight team receives IED threat brief.

3,500 Warlock Blue jammers have been produced as of July 20.

Expect more than 3,000 of these jammers to be delivered to theater by the end of July.

Army achieves theater requirement for M1114 Up-Armor HMMWVs: 9,727.

Army modifies distribution strategy for M1114 Up-Armor HMMWVs. The 4th Infantry Division will receive 824 vehicles before its deployment to theater beginning later this calendar year. The 4th Infantry Division is a fully digitized division that has unique command and communication requirements for its tactical wheeled vehicle fleet. Army analysis indicates upgrades are more readily accomplished stateside.

August 2005

The committee sends letter to Chairman of the Joint Chiefs, General Richard Myers to inquire as to the proper allocation of M1114 Up-Armor HMMWVs in Iraq.

Warlock Blue jammers complete production.

USMC begins implementation of HMMWV underbody armor strategy to expedite underbody protection for HMMWVs in Iraq. Strategy will armor 3,362 HMMWVs through a combination of M1114 Up-Armor HMMWVs and HMMWVs w/ Marine Armor Kits.

HASC oversight team travels to body armor, M1114 Up-Armor HMMWV and tactical truck manufacturers.

HASC staff receives update briefing from the Army and Marine Corps on body armor production/distribution in response to New York Times press article

Readiness Team travels to Ft. Hood, Texas to meet with 4th Infantry Division (ID). Readiness team is shown an M1114 Up-Armor HMMWV and notified of Army's change in Up-Armor HMMWV distribution strategy.

<u>HASC staff receives update briefing on Army and Marine Corps Long</u> Term Armoring Strategy.

September 2005

HASC staff inquires as to Army's change in M1114 Up-Armor HMMWV production strategy.

Chairman Hunter sends formal letter of inquiry to Vice Chief of Staff of the Army, General Richard Cody concerning proper allocation of up-armored HMMWVs to the Army and the Marine Corps.

<u>Chairman Hunter meets directly with General Myers to discuss IED</u> Countermeasures and Up-Armor HMMWV distribution in theater.

USMC HMMWV underbody armoring strategy is ahead of schedule. Expect completion around November 2005.

M1114 Up-Armor HMMWV monthly production stands at 550/month.

HASC staff continues to work with private industry to pursue new jammer solutions to address IED threat.

October 2005

October 20, 2005: HASC holds full committee hearing on Army's 4th Infantry Division Up-Armor HMMWV distribution strategy.

HASC Oversight Team receives briefing from Anti-Armor Task Force, part of the National Ground Intelligence Center

M1114 Up-Armor HMMWV production stands at 575/month. Army's new M1151 Up-Armor HMMWV production increased to a rate of 125/month. Total Armor HMMWV production at 700

The 4th Infantry Division receives final shipment of M1114 Up-Armor HMMWVs. M1114 Up-Armor HMMWVs have already begun shipment from the 4th Infantry Division to Kuwait for theater distribution.

Army and Marine Corps have six qualified producers of new, improved SAPI plates. Expect to reach a maximum production rate of 25,000 sets/month.

November 2005

November 2, 2005: HASC holds full committee hearing on Department of Defense Acquisition Reform. Topics include ability of the acquisition system to immediately respond to force protection needs of our warfighters.